

Additional file 6. Nurse-requested x-ray

Author Year, reference Country	Study design	Size of emergency dept Admission rate	Intervention (I) Control (C)	Outcome	Results Intervention (I) Control (C) Difference (D)	Study quality and relevance Comments
Lindley-Jones M et al 2000 [52] United Kingdom	RCT Two separate two week periods, six months apart. Limb injuries except elbow, knee and hip	59 000/year	I: X-ray requested by triage nurse if needed (68%) N=335 C: Regular triage and x-ray requested by nurse practitioners or emergency physician N=340	WT (time to finishing assessing injury)	I: 65.5 minutes C: 102.7 minutes D: 37 minutes p<0.0001	Moderate Shorter WT for patients with nurse-requested x-ray Nurses requested 8% fewer x- rays than doctors
Parris W et al 1997 [53] Australia	RCT Intervention on odd dates Isolated injury to wrist or ankle Patients that did not need x-ray or that were admitted were excluded	35 000/year	I: X-ray requested by triage nurse N=87 C: X-ray requested by physician N=87	LOS No fracture N=121 Fracture N=55	I: 100 minutes C: 114 minutes D: 14 minutes p=0.14 I: 173 minutes C: 179 minutes D: 6 minutes p=0.37	Low No significant change in LOS if triage nurse initiated x-ray
Thurston et al 1996 [54] United Kingdom	RCT, multicentre. Triage nurse randomly allocated patients by random list to nurse or doctor. Only limb injuries below elbow and knee	43 000– 86 000/year (4 hospitals)	I: X-ray requested by nurse N=915 C: X-ray requested by doctor N=918	LOS (all) LOS (no x-ray) Proportion of patients referred to x-ray	I: 88.5 minutes C: 94 minutes D: 6 minutes p=0.1 I: 36 minutes C: 51 minutes D: 15 minutes p<0.001 I: 78% C: 74% p=0.05	Moderate 167 patients excluded because of incomplete protocols or missing data No difference in LOS except for patients where nurses did not request x-ray More x-rays requested by nurses Doctors added x-rays requests in 24% of nurse non required group

LOS = Length of stay; WT = Waiting time

